

REMARKS

Claim 11 has been amended, and claims 4 and 7-13 are presented for further examination. No new matter is added by the amendment.

The rejection of claim 11 under 35 U.S.C. §112, second paragraph, as indefinite due to the term "high speed" has been obviated by cancellation of the objected to term. Reconsideration and withdrawal of the rejection are respectfully requested in view of the amendment.

The rejection of claims 4, 7, 9-12 under 35 U.S.C. 103(a) over Grimberg et al., US 5,609,821 in view of Feasey et al., US 5,130,053 is respectfully traversed.

As acknowledged in the Office Action, Grimberg et al. does not disclose concentration ranges of phosphonic acid in the range of 200 – 500 ppm as required by Applicants' claims. This deficiency is not rectified by Feasey et al.

Feasey et al. is said to disclose a composition of hydrogen peroxide and phosphonic acid in the range of 50 to 1000 ppm. Feasey et al. also discloses concentration ranges of 10 – 50 ppm (col. 4 line 48) and 1000 – 5000 ppm (col. 4 line 56). However at no point does Feasey disclose or suggest the narrower, presently claimed phosphonic acid range of 200 – 500 ppm.

Attention is directed to the Manual of Patent Examining Procedure, §2131.03 II, where it is noted that to disclose a feature the prior art range must disclose the claimed range with "sufficient specificity". As mentioned therein, in *Atofina v. Great Lakes Chem. Corp*, 441 F.3d 991, 999, 78 USPQ2d 1417, 1423 (Fed. Cir. 2006) the court held that a reference temperature range of 100-500 °C did not describe the claimed range of 330-450 °C with sufficient specificity to be anticipatory even though there was disclosure of a more preferred range which also overlapped with the claimed range.

In the present case, Feasey et al. merely discloses that the stabilizer can be in the range of anywhere from 10 ppm to 5000 ppm (See col. 4, line 47 – 56) and for certain applications a range of from 50 – 1000 ppm (See col.4, line 51), but even the specific example of Feasey et al. (col. 7, example 5) does not specify the stabilizer content further. Feasey et al.. does not disclose which

concentration range is appropriate for foodstuff-compatible phosphoric acids as presently claimed. Consequently, there is no teaching to the skilled person which range to choose.

However, even if the skilled person chose the disclosed range closest to that presently claimed (i.e. a disclosed range of 50 – 1000 ppm) the pro-rata magnitude of the specificity is almost exactly the same as the precedent established in *Atofina v. Great Lakes Chem. Corp. supra*. In the *Atofina* case, a claim covering 30% of the disclosed range was held to be novel over the disclosure¹. In the present case the claimed range covers 31.6%² of one of the disclosed ranges. This is almost exactly the same percentage as the precedent established in *Atofina*. Moreover these percentage figures do not take into account the teaching in *Feasey et al.* which is even less specific as it also teaches to use ranges of 10 – 50 ppm and 1000 – 5000 ppm, nor do these percentages take into account the teaching in the prior art reference of the *Atofina* case which had a preferred range closer to the claimed range but was nonetheless held not to disclose the claimed range.

Applying this precedent to the present application, it can be seen that *Feasey et al.* does not disclose the range of 200 – 500 ppm with sufficient specificity. Consequently, even assuming *arguendo* that it would be proper to combine *Grimberg et al.* and *Feasey et al.*, the resulting combination does not disclose or suggest a hydrogen peroxide containing phosphonic acid within the presently claimed range.

The inventors of the present invention have found a narrow range at which the stabilization hydrogen peroxide is surprisingly enhanced, thus contributing useful technical teaching to the art. Importantly, this enhanced result could not have been expected or predicted by a person of ordinary skill in the art. Rather, as noted in the application as filed (paragraph 18), it was a

¹ In the *Atofina* case, the claimed invention covered 330 to 450 °C ie a range of 120 whereas the disclosure covered 100 to 500 °C ie a range 400; 120/400 is 30%.

² In the present invention, the claimed invention covers 200 – 500 ppm ie a range of 300 whereas one range in the disclosure covers is 50 – 1000 ppm ie a range of 950; 300/950 is 31.6%.

surprising result that such levels of stabilizer did not leave solid residues on apparatus used with the present invention.

The unexpected and surprising nature of the invention is reinforced by Grimberg et al, who repeatedly teach not to use more than 50 ppm phosphonic acid (See column 3, line 31; column 3, lines 46 – 47; and column 4, lines 29 – 30) and the specific examples which use 26 mg/kg (= ppm): (See column 4, line 58; and column 5 line 28), and thus teaches away from the present invention.

Moreover whilst Feasey discloses a broad range of 10 – 5000 ppm phosphonic acid it does not teach the skilled person which concentration to use for foodstuff applications. Therefore an ordinarily skilled person having regard to both Grimberg and Feasey and considering the use of phosphonic acid for foodstuff applications would be clearly taught by Grimberg of the upper limit of such a range (i.e., less than 50 ppm) and given Feasey also discloses such a range there is no motivation to increase the concentration of phosphonic acid stabilizer above 50 ppm. *Arguendo* any routine experimentation against the teaching of Grimberg and without motivation from Feasey would not extend to a four fold increase in the maximum amount of phosphonic acid to be used as taught by Grimberg. Therefore the present invention claims a surprising result from which Grimberg clearly teaches away.

Accordingly, even assuming *arguendo* that the combination of Grimberg et al. and Feasey et al. is proper, it is apparent that the combined disclosures of these documents coupled with the ordinary level of skill in the art fail to make out a proper, *prima facie* case of obviousness with respect to the presently claimed invention. Therefore, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 4, 7 and 9-12 over Grimberg et al. and Feasey et al.

The rejection of claims 8 and 13 under 35 U.S.C. 103(a) over Grimberg et al., Feasey et al., and further in view of Vogle et al., US 4,104,024 is likewise respectfully traversed. The deficiencies of Grimberg et al. and Feasey et al. have been noted above. Vogle et al. contains nothing to rectify the deficiencies of the

combination of the primary references. Thus, dependent claims 8 and 13 are respectfully submitted to be allowable with their parent claims, without prejudice to their individual merits. Reconsideration and withdrawal of the rejection of claims 8 and 13 are accordingly, respectfully requested.


In view of the foregoing amendments and remarks, the application is respectfully submitted to be in condition for allowance, and prompt, favorable action thereon is earnestly solicited.

If there are any questions regarding this Reply or the application in general, a telephone call to the undersigned at (202) 624-2845 would be appreciated since this should expedite the examination of the application.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #101771.53337US).

Respectfully submitted,

September 12, 2008



J. D. Evans
Registration No. 26,269

CROWELL & MORING LLP
Intellectual Property Group
P.O. Box 14300
Washington, DC 20044-4300
Telephone No.: (202) 624-2500
Facsimile No.: (202) 628-8844
JDE:moi (doc. # 6320842)